



DSC TECHNICAL BULLETIN 04- 03

Subject: Mildew and Oil Base Paint

Discussion:

We have experienced a number of historic preservation jobs that have recurrent mildew problems, particularly when located in damp and humid parts of the country. The mildew can be removed with a variety of products on the market, including diluted household bleach, only to return in a couple days or weeks. One of the primary causes is the oil-base paint that has been either historically or recently applied. A publication by the Forest Products Society¹ defines one of the primary culprits as:

“Natural oils such as linseed oil and tung oil are food for mildew. If these oils are applied to wood without a mildewcide, they can encourage mildew growth.”

It should be noted that Alkyd-based paints are essentially linseed oil-based paint with the lead removed. Additionally, it has been our experience, in extremely damp areas, that application of mildewcide and water-base paint over existing oil-base paint does little to mitigate the problem.

Recommendation:

- Pretreat with a Water-Repellent Preservative (also available in waterborne formulations)

Ingredient ²	Approximate composition (percent by weight)	
	Water repellent	Water repellent preservative
Preservative (fungicide)	0	0.25
Resin or drying oil	10	10
Paraffin wax	0.5-1	0.5-1
Solvent (turpentine, mineral spirits, or paint thinner)	89	84-89

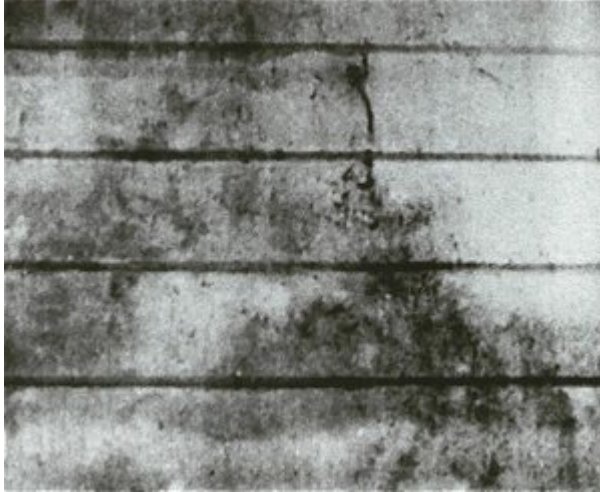
- Use 100% acrylic latex opaque primers and top coats.
- Alkyd-base paint is still preferable for high traffic or use areas like porch decking or columns.
- In high humidity environments, old oil-base paint may need to be removed prior to the application of new paint.

Bruce Warneke,
Chief, Technical Branch

¹ *Finishes for Exterior Wood*, 1996, Williams, Knaebe, Feist, Forest Products Society, Madison, WI

² *IBID*

Images:



Mildew on siding

<http://www.forestprod.org/shop/index.html>

Finishes for Exterior Wood: Selection, Application, and Maintenance



This manual contains definitive, practical information on the proper selection, application, and maintenance of exterior wood finishes, including:

How manufacturing, design, and construction practices affect the surfaces of exterior wood products.

- How various types of finishes interact with wood surfaces.
- How weathering affects the wood and finished surface.
- How to select and apply various exterior wood finishes.
- How degradation and discoloration of exterior wood finishes occur and what methods can be used to prevent these problems.

Finishes for Exterior Wood is an invaluable resource not only for finish applicators, but also for designers of exterior wood structures interested in understanding the various mechanisms that affect the service life of finished exterior wood products.